

SA Mathematics Challenge 2013

GRADE 4 FINAL ROUND

4 SEPTEMBER 2013

NOTE:

- Answer the questions according to the instructions on the answer sheet.
- You may use a calculator.
- The questions test insight. Complex calculations will therefore not be necessary.
- We hope you enjoy it!

SA Wiskunde-uitdaging 2013

GRAAD 4 FINALE RONDE

4 SEPTEMBER 2013

LET OP:

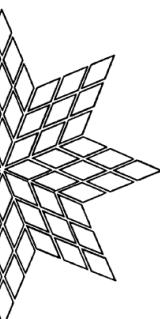
- Beantwoord die vrae volgens die instruksies op die antwoordblad.
- Jy mag 'n sakrekenaar gebruik.
- Die vrae toets insig. Omslagtige berekeninge is dus onnodig en tydrowend.
- Ons hoop jy geniet dit!

1. What number is the mouse covering?

$$1 \quad \frac{1}{2} \quad \frac{1}{4} \quad \text{mouse} \quad \frac{1}{16}$$

- (A) $\frac{1}{5}$ (B) $\frac{1}{10}$ (C) $\frac{1}{12}$ (D) $\frac{1}{6}$ (E) $\frac{1}{8}$

1. Watter getal hou die muis toe?



2. How many small squares are there in this three-dimensional figure?

2. Hoeveel klein vierkantjies is daar in hierdie driedimensionele figuur?

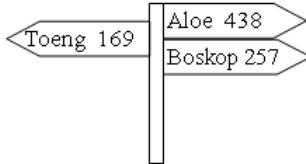
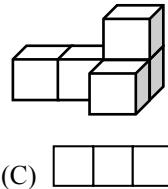
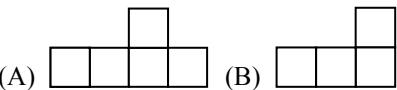
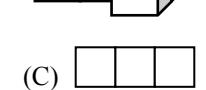
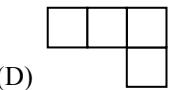
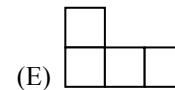
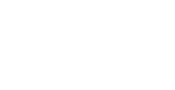
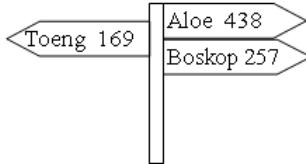
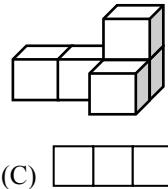
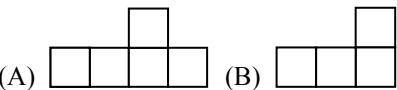
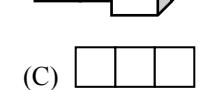
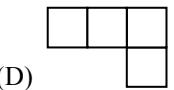
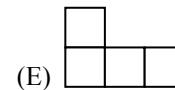
- (A) 63 (B) 72 (C) 80 (D) 81 (E) 90

3. At a party each child gets $\frac{1}{3}$ of a pizza. There were 15 pizzas altogether. How many children were at the party?

3. By 'n partytjie kry elke kind $\frac{1}{3}$ van 'n pizza. Daar was altesaam 15 pizzas. Hoeveel kinders was by die partytjie?



- (A) 5 (B) 45 (C) 18 (D) 30 (E) 15

4. Only one of these calculations is correct. Which one?
 (A) $54 \times 65 = 3512$ (B) $78 \times 19 = 1486$ (C) $33 \times 58 = 1914$ (D) $69 \times 10 = 695$ (E) $82 \times 15 = 1235$
5. Which one of the following numbers will appear in the sequence
 6; 12; 18; 24; ...?
 (A) 2733 (B) 3526 (C) 4182 (D) 4526 (E) 5344
6. A train departs from Bellville station at 09:47 and arrives in Cape Town at 10:18. Another train on the same route leaves Bellville at 12:30. At what time does it arrive in Cape Town?
 (A) 13:18 (B) 13:01 (C) 01:01 (D) 13:12 (E) 12:51
7. Jason and Mary together have 96 stamps. If Jason has twice as many stamps as Mary, how many stamps does Mary have?
 (A) 48 (B) 46 (C) 32 (D) 16 (E) 44
8. This road sign at a T-junction shows the distance, in kilometres, to three towns. What is the distance between Aloe and Boskop?

 (A) 607 km (B) 181 km (C) 222 km (D) 269 km (E) 665 km
9. In the previous question: What is the distance between Aloe and Toeng?
 (A) 607 km (B) 181 km (C) 222 km (D) 269 km (E) 665 km
10. Thabo and Peter buy a case of 12 cooldrinks and pay R30 for it. Thabo takes 4 bottles and Peter takes the other 8. How much must Thabo pay for his share?
 (A) R12 (B) R9 (C) R15 (D) R8 (E) R10
11. What will you see if you look at this block building *directly* from behind?

 (A)  (B)  (C)  (D)  (E) 
12. What is the next number in this pattern?
 6,8; 3,4; 1,7; ...
 (A) 0,85 (B) 8,5 (C) 1,35 (D) 0,9 (E) 0,535
4. Slegs een van hierdie berekening is korrek. Watter een?
 (A) $54 \times 65 = 3512$ (B) $78 \times 19 = 1486$ (C) $33 \times 58 = 1914$ (D) $69 \times 10 = 695$ (E) $82 \times 15 = 1235$
5. Watter een van die volgende getalle sal voorkom in die getalry
 6; 12; 18; 24; ...?
 (D) 4526 (E) 5344
6. 'n Trein vertrek om 09:47 van Bellville-stasie en kom om 10:18 in Kaapstad aan. 'n Ander trein op dieselfde roete vertrek om 12:30 van Bellville. Hoe laat kom dit in Kaapstad aan?
 (D) 13:12 (E) 12:51
7. Jason en Mary het saam 96 seëls. As Jason twee keer soveel seëls as Mary het, hoeveel seëls het Mary?
 (D) 16 (E) 44
8. Hierdie padteken by 'n T-aansluiting gee die afstande, in kilometer, na drie dorpe. Wat is die afstand tussen Aloe en Boskop?

 (A) 607 km (B) 181 km (C) 222 km (D) 269 km (E) 665 km
9. In die vorige vraag: Wat is die afstand tussen Aloe en Toeng?
 (D) 269 km (E) 665 km
10. Thabo en Peter koop 'n kis met 12 koeldranken en betaal R30 daarvoor. Thabo neem 4 bottels en Peter neem die ander 8. Hoeveel moet Thabo vir sy deel betaal?
 (D) R8 (E) R10
11. Wat sal jy sien as jy *presies* van agter na hierdie blokgebou kyk?

 (A)  (B)  (C)  (D)  (E) 
12. Wat is die volgende getal in hierdie getalpatroon?
 6,8; 3,4; 1,7; ...
 (D) 0,9 (E) 0,535

13. Voyo has 24 marbles more than Bingo and Thandi has 24 less than Bingo. If Bingo has 71 marbles, how many do they have altogether?

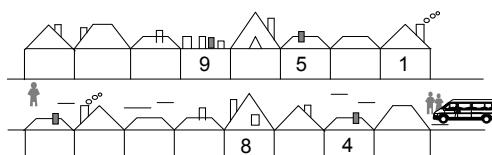
(A) 211 (B) 213 (C) 215

13. Voya het 24 albasters meer as Bingo en Thandi het 24 minder as Bingo. As Bingo 71 albasters het, hoeveel het hulle altesaam?

(D) 217 (E) 219

14. The sketch shows the numbering of houses in Way street. Caroline lives at number 36
Con lives at number 37
Luke lives at number 38
Maria lives at number 39
Angelo lives at number 40

Who lives opposite Luke?



14. Die skets toon hoe huise in Waystraat genommer is.
Caroline woon in nommer 36
Con woon in nommer 37
Luke woon in nommer 38
Maria woon in nommer 39
Angelo woon in nommer 40

Wie woon direk oorkant Luke?

(A) Caroline (B) Con (C) Maria

(D) Angelo (E) Marc

15. A shop sells potatoes in big bags with 40 potatoes for R35,60. If they want to sell smaller bags of 15 potatoes for the same price, what should the price of the smaller bag be?

(A) R10,68 (B) R13,35 (C) R17,80

15. 'n Winkel verkoop groot sakke met 40 aartappels vir R35,60. As hulle kleiner sakkies met 15 aartappels teen dieselfde prys wil verkoop, wat moet die prys van die kleiner sakkie wees?

(D) R16,40 (E) R15,65

16. One number in this pattern is incorrect. What should the number be?

7; 9; 12; 16; 21; 28

(A) 20 (B) 27 (C) 15

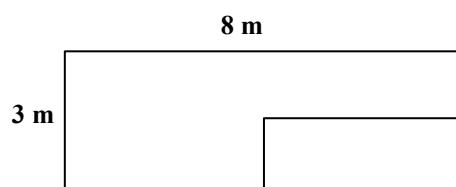
16. Een getal in die patroon hieronder is verkeerd. Wat moet die getal wees?

7; 9; 12; 16; 21; 28

(D) 12 (E) 10

17. An ant walks once around the rectangular figure below, all along the lines. How far did the ant walk?

17. 'n Mier stap al op die lyne, een keer om hierdie reghoekige figuur. Hoe ver het die mier gestap?

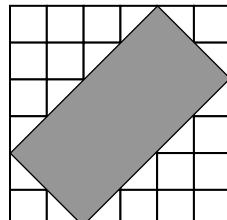


(A) 11 m (B) 19 m (C) 22 m

(D) 24 m (E) Not enough information
Nie genoeg inligting nie

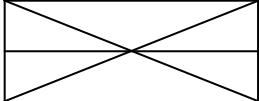
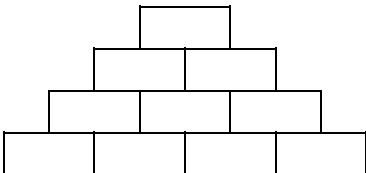
18. The sketch shows a carpet on a tile floor. What fraction of the floor is *not* covered by the carpet?

18. Die skets toon 'n mat op 'n blokkiesvloer. Watter breuk van die vloer word *nie* deur die mat bedek nie?



(A) $\frac{16}{36}$ (B) $\frac{5}{9}$ (C) $\frac{11}{36}$

(D) $\frac{22}{30}$ (E) $\frac{22}{36}$

-
19. In Townville the park is 3 km west of the school. The library is 1 km west of the church. The church is 4 km east of the school. How far is the library from the park?
- (A) 6 km (B) 4 km (C) 5 km (D) 7 km (E) 8 km
-
20. A vat contains 120 litres of wine. How many 1,5 litre bottles can be filled from this vat?
- (A) 180 (B) 60 (C) 72 (D) 80 (E) 96
-
21. How many triangles are there all together in this figure?
- 
- (A) 8 (B) 10 (C) 12 (D) 14 (E) 16
-
22. If the pattern below is continued, how many squares will Pattern 100 have?
- Pattern 1*: 3 squares
Pattern 2: 5 squares
Pattern 3: 7 squares
Pattern 4: 9 squares
- (A) 301 (B) 302 (C) 300 (D) 298 (E) 299
-
23. Siva is shorter than Temba. Eby is taller than Ram and Temba. Siva is also shorter than Ram but taller than Oscar. Who is the shortest of them all?
- (A) Oscar (B) Siva (C) Temba (D) Ram (E) Eby
-
24. You have three 10c coins, two 5c coins and two 20c coins. In how many different ways can you give a person 35c?
- (A) 2 (B) 3 (C) 4 (D) 5 (E) 6
-
25. Sipho builds “pyramids” with blocks as shown in the sketch below. To build a pyramid 4 blocks high he needs 10 blocks. How many blocks does he need to build a pyramid 50 blocks high?
- 
- (A) 2500 (B) 1275 (C) 2401 (D) 2550 (E) 2601
-